

'SURGICAL PATHOLOGY' - WHAT'S IN A NAME?

Editor's note: The Synapse is pleased to introduce a new series consisting of 'Medical Anecdotes' ... short accounts of interesting cases, some medical disasters, involving pathology and clinical practice, from the recollection of **Prof. Albert Cilia-Vincenti**.



The American name for 'histopathology' (also known as 'cellular', 'tissue' or 'anatomic' pathology) is 'surgical pathology', and there is medical history behind this label. In the 19th century, big American surgical departments were increasingly dissatisfied with reports from pathology colleagues. Surgeons were mainly interested in prognosis after excision of a diseased tissue or organ, and not in detailed microscopic descriptions devoid of any clinically useful information. They eventually decided that the pathological examination of their surgical specimens would be carried out in-house. This is why, in some of the larger American institutions, the surgical pathology department, including the frozen section room, is located within the surgical department.

These 'novel concept' surgical pathology departments immediately set about researching morphological clues to prognosis which, in the main, consisted of painstaking patient follow-up and histology review. One important breakthrough of this research was the identification of a group of pseudo-sarcomatous lesions. These mimicked sarcoma both clinically and microscopically. However, these pseudo-sarcomatous lesions had been responsible for many unnecessary limb amputations.

In the mid-1960s a Maltese medical student was suffering from a recurrent tumour in his right leg's peroneal compartment muscles, which was diagnosed as fibrosarcoma. He struck

it lucky when his Maltese surgeon declined to perform the indicated amputation himself and referred him to London's Royal Marsden Hospital (previously called The Royal Cancer Hospital).

His luck consisted in that the pathologist at the Royal Marsden had just seen a paper by Arthur Purdy Stout, an American surgical pathologist, describing a number of pseudo-sarcomas, including a so-called "desmoid" tumour (now classified as 'infiltrative fibromatosis'), and how to distinguish them microscopically from sarcoma. The paper detailed how these lesions were locally infiltrative like sarcoma but did not metastasize. Most of them occurred in the anterior abdominal wall muscles in women, apparently after pregnancy, and in limb muscles in both sexes, predominantly in the young, with a high recurrence rate after attempts at local excision, and a tendency not to recur further after increasing age.

The Maltese student had first noticed his leg tumour in his late teens and in total, had undergone four attempts at excising it, twice in Malta and twice in London. The latter two operations involved block dissections of lateral calf muscles, including excision of the fibula with the whole peroneal compartment muscles in the first of these operations. Recurrence did not occur after the fourth operation when he reached age 25. Many other young people have been spared limb amputations by the clinical research of American surgical pathologists. ❄️

